

# Factors Impacting Marketplace Success of Community Forest Enterprises: The Case of TIP Muebles, Oaxaca, México

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**Abstract** In most developing countries where local community ownership is common, successful forest conservation initiatives must be adapted to engage and train rural communities. Decentralization of decision-making and stewardship by the State is required to maintain forests as a common good with extended benefits to society. Despite a tendency to operate in isolation, three Oaxacan community forest enterprises (CFEs), Textitlán, Ixtlán and Pueblos Mancomunados, have vertically integrated from forest management to retailing furniture through a company: TIP Muebles. This exploratory study aims to provide insight and outline the factors impacting the ability of CFEs to succeed in the marketplace given the fact that each deals with the same regulation structure of public forest policy. The results of this research suggest that the main challenges are related to human capital, regulatory challenges and centralized forest policy for forest product production, the taxation system for timber production, and endogenous factors such as the forest quality and the decisions based on tradition rather than efficiency. In this context, the integration of chains of production is a fact in only a few cases and financial success continues to be slow. The studied CFEs are resilient and slightly surpassing the profitability threshold despite the challenges identified. Adaptation of their decision-making structure allows them to face the changing dynamics of the market. More

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democratic approaches to decentralization of Mexican forest policy, trust development between social and private enterprises, and an improvement in internal CFEs systems could offer opportunities for improved competitiveness for CFEs. CFE strategies need to be understood as part of a complex rural livelihood where diversification of income generating activities often conflicts with competitive and specialized production.

**Keywords** Community forest enterprise · Forest products · Small scale forestry · Secondary wood products · Cargo system · Oaxaca · México

## Introduction

In developed countries approximately 40% of forestland is under the control of family owners and small producers. In the North, there are around 25 million families who are well organized to interface with larger-scale, efficient production and processing enterprises, including pulp and paper manufacturers (IFFA 2009; Macqueen 2008). In developing countries, the transfer of commercial rights and community control to communities has been different and faced great difficulty (Macqueen 2008). Only approximately 22% of the total forest area in those countries is own by communities, representing approximately three times the amount held by private individuals and firms (White and Martin 2002). Along with the exception of Papua New Guinea, Mexico has not the same degree of governmental concentration as in many other developing countries and this fact has important repercussions on experiences of forest appropriation and stewardship like ICOFOSA-TIP Muebles.

The premise that local control and democracy can encourage environmental sustainability was questioned using the “the tragedy of the commons” argument (Ross 2005). The argument states that degradation occurs when common property is managed in a decentralized fashion and only monopoly (private, corporate, or state-owned) ownership of natural resources will solve the problem of environmental degradation (Hardin 1968).

Indeed, it is said that local ownership will exacerbate environmental problems due to an individual’s tendency to maximize personal benefits. Based on that assumption, policies promoting privatization of the rural commons in Mexico were influenced by such a “tragedy” argument, making collective tenancy responsible for forest degradation (World Bank 1995 in Ross 2005). Although, community forest operations have challenges, market-oriented policies without including local support or lacking sound management practices can lead to diminished natural resources, increased political instability, and poverty (Ross 2005). We should take care not to romanticize communities because many are not sustainable, and do not have inclusive approaches. Those patterns partially relate to their genesis. In Mexico, former corporate-oriented forest policies often lead to degraded forests and further marginalized communities (Ross 2005).

However, Community Forest Enterprises have generally been found to be positive forces for forest conservation since the commercial interest and

sustainability of their families depend on standing forests. The research of Elionor Ostrom, 2009 Nobel Prize winner in economics, shows that communities can successfully set rules and monitor resource extraction. With appropriate communication among community members, they can effectively establish their governance local institutions and manage the commons sustainably (Bray 2010).

Mexican timber production and the forest industry are not considered to be internationally competitive because, according to the World Bank, production costs (including transport) are high, community-managed forests are inefficient, few forests are actively managed, and lack of infrastructure makes most of the timber inaccessible (Ross 2005). Still, “an impressive number of community forest enterprises (CFEs) in Mexico, most likely numbering in the hundreds, have successfully developed community managed operations that deliver social and economic contributions to the community and maintain the ecosystem functions of the forests” (Antinori and Bray 2005).

The three CFEs forming ICOFOSA under their commercial venture TIP Muebles: Ixtlán, Pueblos Mancomunados and Textitlán, have similar levels of organization, management and manufacturing technology, and are vertically integrated from forest silviculture through furniture distribution. Since more than 25 years ago, the communities have demonstrated their capacity to work on sustainable models of forest management, activate the local economy and create infrastructure for their forests. ICOFOSA not only promotes the production and commercialization of wooden furniture, also creates benefits to their more than 23 mil 500 habitants by generating 834 direct and 500 indirect jobs. The lesson to learn from the three communities comprising the ICOFOSA is to take a critical approach to the current model of traditional and centralized forest policy that denies the complex, interactive and contingent nature of the local process of forest communities in developing countries, in short, to support the current forest-owners demands for stewardship. Two main social capital issues need to be teased out for further analysis. The inter-communitarian strategies of marketing trough a remarkable degree of inter-community trust which developed in the integration of TIP Muebles, and the level of trust along the forest-products value chain in Mexico. TIP Muebles is an entrepreneurial alliance between three free-standing CFEs that is focusing on furniture production of 9,500 scholar furniture per month; enhance product quality and time-delivery, consolidate their local and national market, to develop a franchising system and to propel at the national level the market for certified forest products (García 2008). Its activities have given indigenous communities of Oaxaca the tools to compete in local interconnected-world markets while managing their forest for future generations (Bray 2010). To strive to those goals, the three communities have created a joint venture company, ICOFOSA, to distribute their furniture and share costs. The creation was based more on the commercialization needs of the three factories than on a real demand for Forest Stewardship Council (FSC) certified wood (Anta 2004). TIP Muebles is seen as creating opportunities to open new markets and enhance revenues for their communities (Pérez 2007). ICOFOSA is facing challenges to follow the transition towards more competitive markets while taking new measures in order to maintain

job opportunities, forest productivity, forest stewardship, biodiversity, and forest cover in their communities.

ICOFOSA illustrates a suitable model of vertical integration and cooperation among three communities for the benefit for their people, as stated in their General Assemblies. The survival of TIP Muebles even when its profitability is not always a top priority, is only explained by the benefits that the social enterprise gives to its stakeholders in a variety of forms, such as participation, common-pool distribution and networking (Merino 1997). Moreover, the tendency of Mexican CFEs has been strongly oriented to operate in isolation, unless an external situation threatens them collectively (ASETECO 2002). The challenge of competition has been enough to make this group of organizations look for income alternatives within an increasingly open economy.

### Study Objectives

The objectives of this research, were to

- a. To provide insight and outline the factors impacting CFEs such as ICOFOSA to integrate multiple communities within efficient forest operations, and
- b. Outline the opportunities and market challenges for economic success given the current regulation structure and forest policy.

## Background

### Current Status of Mexican CFEs

In Mexico, *ejidos* and *comunidades agrarias* own 60–65% of the forest (CIFOR 2010; Bray 2010), 5% is owned privately and 15% is federal land (ITTO 2006). The current contribution of the wood industry to the Mexican economy is still very low: GDP of 17 billion pesos, only 1.2% of the economy (ITTO 2006).

The government's Strategic Forestry Plan 2025 has the goal of generating enough synergy to engage more players and revitalize the sector. This is the reason why when the market fails to maintain industry productivity and its sustainability; the forest industry as any other strategic sector requires governmental intervention. The importance of social returns are the main reason why when the market fails to maintain industry productivity and its sustainability the forest industry as many other strategic sector requires governmental intervention (Stiglitz 2002). The State needs also to balance the externalities caused by the production and exchange process. Thus, there is still potential for a public forestry policy with financial instruments, able to distribute towards the communities (Muñoz-Piña et al. 2003). However, the intervention creates tension between approaches. On one side is the forest regulation (official norms, natural protected areas, ecologically protected lands, among others), and on the other deregulation, different from decentralization or privatization of forest activity. While the latter generates low transaction costs for producers and buyers, making it a more profitable activity, the former tries to

control illegal extraction. In most developing countries, regulation comes from the conservationist approach that the forest is better protected under state control (Muñoz-Piña et al. 2003), however the approach of Mexican State through CONAFOR its executor entity has been supportive to the CFEs development since its creation 10 years ago.

Reforestation currently receives more investment in the Forestry Development Program than forest management or plantation agreements with *ejidos*. The risk of promoting tree-oriented policies or even environmental services per se over people enhancement of capabilities could be a seed of future social problems and inequity issues. The nature of communitarian silviculture is based on selective harvesting contrasts (in the best cases) with the market-driven use of plantations. This is perceived as a broader State intention to gradually change the land use and indeed the competitiveness of the industry towards private ownership only affordable to a few competitive corporations. Enhancing the existing attributes of CFEs could have potential for long-term scope beyond its economic value. ICOFOSA has been an exceptional case on the CFEs panorama, partially because of their lobby capacity to put in practice the State and Federal Law of Acquisitions. The results are visible on their major investments on intensive technology due to their high degree of subsidization.

Mexico's competitiveness in the wood industry is impacted by the way the entire supply chain is managed. It is important to understand that its composition goes further beyond Grupo Durango, Poderosa, the Rincón family, Rexel, Kimberly Clark and Chedraui with commercial plantations or with a few CFEs such as San Juan Nuevo, El Balcón, Novec, Milpillás, Salto de Camellones, Pueblos Mancomunados or Ixtlán, often presented as the successful cases, but to the majority of existing CFEs in rural Mexico that struggle with lack of human capital on managerial basis and management capabilities (Bray and Merino-Pérez 2002; National Institute of Ecology INE; Francisco Chapela, personal communication).

In fact, the large majority of CFEs tend to stumble from crisis to crisis, have serious problems in stable governance, fiscal administration, forest and business management, and traditional patterns of a patriarchal society (Molnar et al. 2007). Small-scale forest operations in developing countries often rely on hierarchical patron-client relations and stratified value chains, with an unequal distribution of benefits (Ribot 2003). Thus, CFE strategies need to be understood as part of a complex rural livelihood strategy where, in order to manage risk, diversification of income generating activities could contradict competitive and specialized production decisions (Ellis 2000).

However, competitiveness cannot only be addressed by economic terms—social and environmental factors must be evaluated by stakeholders. It is stated that CFEs are better stewards than the federal government (Antinori and Bray 2005). With approximately 2,400 timber producers, Mexico has the largest sector of community-managed, common-pool forests dedicated to the forest industry in the world (Bray et al. 2005). With its diversity, the community forest sector in Mexico has achieved a level of maturity in devolving their forest to local communities (Bray and Merino-Pérez 2002). CFEs are an increasingly significant player in the domestic and global marketplace in the tropical timber-producing countries (Molnar et al. 2007).

Mexican CFEs can be seen to be in the second phase of development of common property arrangements. This phenomenon is attributed to the fact that land devolution started earlier than counterparts in other countries.

Organized communities influence responsibility beyond a short term source of income, towards good stewardship. There are examples throughout Mexico of communities that have taken actions to preserve their forests even though they have not overcome the profitability threshold (Merino 1997). Quantitative research has demonstrated that 42 Oaxaca CFEs appear to be profitable at all levels of integration, thus contributing to community stewardship and its social demands (Antinori and Bray 2005). Ownership and control over production assures access to welfare benefits (Antinori and Bray 2005). The relationship between good forest management and community forest management confirms the expectations of community forest proponents: “Greater community participation in forest benefits and greater community power over forest management results in better forest use and protection and improved livelihoods for local people” (Bray et al. 2006).

On the other hand, when community forest management is caught up in community conflicts, forest degradation is likely to be the result (Klooster 2000). It is important to know that for local communities, the multiplicity of external actors is likely to result in contested interests (Nygren 2005). Still, CFEs can provide diverse direct and indirect benefits for rural people in developing countries. Serving as a safety net, it can provide an important source of income, long term assets, and crucial source of employment (Sunderlin et al. 2005). In this way, forest-related activities are mediated by a range of interacting and overlapping institutions, both formal and informal (Klooster 2006).

The inclusion of CFEs into a national public policy that centers the people as the axis for development can increase the industry competitiveness. From the few examples in the world of community enterprises established on the basis of a common property resource, Mexico’s forest communities can well exemplify this phenomenon (Bray et al. 2005). While some CFEs are well organized and create a network of communitarian participation, most of them seem to face technical and professional challenges related to low levels of human capital (Molnar et al. 2007). Also, social conflicts arise as part of the natural community dynamics diminishing CFE’s steps forward in communitarian assets organization, thus limiting the development of its industry and creating potential for forest degradation.

### Social Capital

The Mexican forest sector could benefit from a higher degree of State participation in infrastructure creation, but moreover in human capital training and social capital creation. Management of many CFE’s follows a traditional *cargo system* where the duty for the administration of both the community and the enterprises rotates among members.

While the *cargo system* is an important measure against corruption and centralization, it also creates great inefficiencies in enterprise management, with experienced people switching positions and spreading experience through the *comuneros*. The inability to bring in professional managers from outside the

community has hampered the continued development of many CFEs. Most CFEs have severe deficiencies in formal education which results in mismanagement throughout the enterprise operation and a lack of skills for handling management, finances, marketing and public relations. As an alternative, some communities are starting to place their own professionally trained community members in most management positions in order to internally develop a more competitive business.

## Research Methods

### Data Collection

Data for this study consists of both inductive and deductive approaches. In one hand, participant observation and semi-structured and open-ended interviews to key informants were used to explore themes and relationships. On the other, existing theory help explain the phenomena under observation. The inductive or phenomenological approach was selected under the Realism Paradigm that emphasizes the building of theories but also incorporates prior theory and so is blend of induction and deduction (Chad 1998). To facilitate data collection and to gain an “insiders view” of the organization, the researcher assumed the functional role of the Marketing Assistant position in TIP Muebles for 6 months to participate in the phenomenon being studied.

Because of the relevance of the integration of three CFE enterprises in a common-pool base with commercial purposes in Mexico, TIP Muebles was selected to explore the scope and limitations of their entrepreneurial firm.

### *Participant Observation*

The ICOFOSA decision-making process and its scope of action was observed during numerous informal conversations and board and staff meetings. Participant observation provided the researcher an opportunity to collect data, to gain access to events and observe relationships that otherwise were inaccessible. Direct observation took place during meetings to assess the decision making process of the board and the company staff. Worker behavior, organizational communication, conditions of reciprocity, and values underlying non-spoken rules and actions were all clues that provided additional information for understanding what makes it possible for these heterogeneous communities to integrate. The process of observation included planning, recording, reflecting, and authenticating the marketing practices of TIP Muebles. To illustrate the decision-making process, direct observation of a seasonal promotion campaign strategy during 6 months and its outcomes (pilot changes in branding strategies, promotional participation on the local market and trade shows) was monitored and recorded. Weekly meetings were captured in meeting minutes.

In order to develop trust and a sense of reciprocity with TIP Muebles staff, the researcher developed an additional component of the study, an evaluation of TIP Muebles' clientele. By assessing the needs of consumers and observation of local competitors, additional information consisting of 29 in-depth interviews were

performed to validate the preliminary observations regarding their decision-making process.

This small-scale market research based on observation and data collection in the field offered a source of information on the decision-making dynamics in the company (see Table 1).

### *Key Informant Interviews*

As an invaluable source of information in real phenomena, key informants confirmed data or provided a primary source of data in its own right (O’Leary 2005). The process to establish contact with key informants was (1) to identify potential informants based on the relevance of their contributions to the CFE field, (2) to confirm the status of those identified, and (3) continuing with the snowball technique it was possible to identify other informants, their location, and availability and negotiate the potential informant agendas. With a volume of data of 60 h of Spanish interviews, a total of 40 key informant interviews were performed. From those, 11 correspond specifically to manufacturers and 29 to key informants across the country in a broad range of groups including: government employees, consultants, NGOs, customers, members of the communities, management positions in ICOFOSA-TIP Muebles, local and international academics, private managers in Mexico, industry brokers and ICOFOSA end-users and competitors (Table 1).

The interview protocol for the key informant interviews was adapted from IIED Small and Medium Forestry Enterprise methodology (Macqueen 2008) because this British initiative is aimed to research industrial demand as mechanism for bringing together forest certification and fair trade.

For the 29 key informants knowledgeable about CFEs in general or ICOFOSA in particular, the following semistructured protocol was used:

**Table 1** Strategy designed to collect primary data for the case study

	Area	Sample	Target	4 Protocols
Real world-insights	Local	Assessment of clientele	Needs assessment 29 company’s end consumers	In-home depth interviews
	Regional	Competitors observation	Retailer operations	Observational indicators
Key informants	Across the country	Manufacturers in trade shows	Eleven manufacturers, private managers in Mexico, wholesalers, and industry brokers	Open interviews and key informants interview
		Key informants	Twenty-nine government players, consultants, NGOs, customers, members of the communities, management positions in the three factories and in TIP muebles, local and international academics	Key informants semi-structured interview guide



### Key Informants Semistructured Conversation Guide

1. What do you believe are the buyer perceptions of certified furniture?
2. At which level of development, according to PROCYMAF classification, do you consider TIP Muebles is as a community forest enterprise?
3. What is the potential for companies such as ICOFOSA in the market and suggestions for marketing strategies?
4. Which challenges and limitations for its success do you see?
5. What lessons have been learned about ICOFOSA as a Community Forest Enterprise in the market?

During the interviews there were two priorities: (1) following the line of inquiry dictated by the protocol, and (2) asking conversational questions in an unbiased manner, particularly about the interviewee interest and opinions (Yin 2009). In some instances interview insights were used for further inquiry.

During the field immersion, the researcher had access to a wide range of secondary information.

Examination of materials such as official data and records, corporate data: sales reports, consultancy reports, media, forest program diagnostics, previous market research reports; ongoing information and worker documented perceptions. Also, institutional letters, agendas, minutes, administrative records, evaluations from the company, and media coverage were all utilized.

Some documents were available through the company files, others through Internet searches. Yin (2009) suggests that documents should not be accepted as literal recordings of events that have taken place, instead they need to be corroborated and augmented by evidence from other sources.

- Archival Records: Budgets were analyzed along with statistical data available by federal, state or local government from SEMARNAT and CONAFOR and previous survey data collected about TIP Muebles' consumers.
- Physical Artifacts: This source of evidence was used to corroborate with the results of the interviews. The most common were the examples of defective furniture such as cracks, splits, twisted or any other type of wood-related problems, to understand the current situation of their product. In certain workshops, some final products were collected as evidence about the impact on the staff's abilities.
- Direct Resources were used, such as observation, reports and diagnostics. Reports documenting previous participation of ICOFOSA in the market were monitored during the data collection process.

### Data Analysis

The analytical procedures for generating theory from empirical data involve a systematic process of induction (Strauss and Corbin 1990). Based on this analytic strategy, empirical conclusions were drawn. Data collection and analysis were not separate activities but emerged at the same time (Strauss 1987). Analysis was present throughout the interviews themselves in the form of making notes during

and after the interviews. The 40 Key Informant interviews were transcribed from audio recording and analyzed through Content Analysis methodology, where the researcher worked each transcript assigning codes to specific characteristics within the text. The categories were designed both by reading through each transcript and letting them emerge from the data and based on a list derived from the theoretical background. Based on contradictions among interviews, documents, and observations during data collection, more data were collected and analyzed. Interview transcriptions were organized in a database using the computer-assisted tool QSR NVivo 7 to manipulate the information. The process of grouping data into conceptual categories is called coding. The coding scheme proceeded in three steps: open coding, axial coding and selective coding or story line generation (Yin 2009).

The hierarchical coding system integrates *families* (Table 2) after the open coding labeling of the key words in the interview transcriptions. The axial code relates to a family code and the later simultaneously to a theme denoting higher levels of abstraction and organization (Strauss and Corbin 1990). Contrasting and relating positions based on theory were identified. The use of rival explanations; opportunities versus limitations, provided a good example of pattern matching for independent variables (Yin 2009).

To enhance construct validity and increase causal inferences from the informant's insights, the predicted overall pattern of outcomes (families) was related to the initial topics indicated in the interview protocol. As certain patterns were produced and more complex categories or groups of codes were built (Yin 2009), rival explanations and contrasting positions among interviewees offered threats to certain predicted assumptions. The most relevant groups were selected and ranked into families according to their recurrence.

The detailed knowledge of ICOFOSA and especially the knowledge about its *integration process* can help to specify the conditions under which the behavior can be expected to occur. In other words, the generalization is about theoretical propositions not about populations (Cassell and Symon 2004). The basis of the generalization is not primarily about the typicality of the organization, a qualitative study is often describing an extreme or ideal case (TIP Muebles has been chosen deliberately to be untypical in order to bring to the surface processes hidden in more usual settings). Rather, the discussion is about the existence of particular process, which may influence behaviors and actions in the organization (Cassell and Symon 2004).

However, only theoretical propositions from a qualitative study can be externally generalizable to other cases, and in this particular example, to provide insight on the business environment for CFEs regarding the fact that all of them deal with the same regulation structure of public forest policy.

## Results

### The Social Capital Within CFEs

Networking within the community, and relations with government and non-government institutions are essential factors to increase social capital and CFE

**Table 2** Example of data analysis from coding process

Themes	Opportunities (selective coding)	Limitations (selective coding)
1. Capital	(e.g. families) Social capital*	(e.g. families) Human capital*
2. Organizational orientation	Adaptation/innovation in decision making process	Dilemma tradition versus efficiency
3. Competitiveness	Improvement of internal systems (facts) ( <i>Axial coding</i> )	Regulatory framework ( <i>Axial coding</i> )
	Market strategies	Regulatory framework
	Product	Public management,
	Customers	Commercial openness
	Geographical area	Taxation policy
	Core competencies	Purchase policy from industrial policy
	( <i>Open coding</i> )	( <i>Open coding</i> )
	Production costs	CFEs <i>current stage of development</i>
	Delivery	Imports competition
	Design	Exchange rates
	Design center	Financial sustainability
	Innovation in production	Fiscal policy
	No grading	Forest management
	Price	Forestry public policy
	Product	FSC
	Productive capacity	Illegal logging
	Productive chains vertical integration	Narrow boards trend
	Quality standards	Forestry plantations
	Wood drying	Trade liberalization policy
	Technology training	

\* Only two examples of families axial coding are presented. Further information, please consult Villavicencio (2009). Opportunities and Limitations of Community Forest Enterprises. MS Thesis.

opportunities for participation in the marketplace. The informant responses suggested that the public forest policy has not fully decentralized a heterogeneous CFE sector and a higher degree of collaboration among institutions. A hypothetical sense of trust and understanding of needs among CFEs and private players could enhance competitiveness within the industry. On the other hand, CFEs face serious problems due to a lack of professionalism and qualified personnel as well as lack of leadership, training and a strategy of maintaining low wages to reduce costs. These collectively result in a lack of competitiveness and profitability for CFEs.

### *Creating Trust and Networking Within in the Supply Chain*

The lack of trust among national traders, both CFEs and private manufacturers, results in an advantage for intermediaries to assume commercial risks and to

integrate the value chain. Too often, CFEs are unable to satisfy volumes or quality standards in the time frame demanded by buyers. Because of ICOFOSA's inconsistencies perceived by manufacturers, the trustworthy intermediary then becomes a necessary component of the value chain.

Indeed, competing in the modern forest sector requires a degree of customer interaction and service, the core of consumer orientation that may be foreign to a CFE. There is a generalized perception among private buyers that *ejidos* and *comunidades* have a lack of training and capability to satisfy the demands of the value chain:

I buy my wood from private companies. In my experience, *ejidos* only sell roundwood and because they are *ejidatarios* they do not know how to dry, how to transform [high-end furniture manufacturer].

There is a need and opportunity for CFEs to learn the “business language” of buyers in terms of dimensions, quality grading, packaging requirements, volume calculations, documentation terminology, delivery schedules, and labeling in order to establish “business credibility” (Macqueen 2006a, b).

The private companies need to have long term guarantees to cover longer-term investments. Short-term contracts allow neither the communities, nor the private companies to invest in the required infrastructure, machinery and roads that could enhance their competitiveness. Productive chain integration will only be possible as a result of financial access for different players. Actually, from the CFEs perspective, the risk that manufacturers face is passed on to CFEs because of little cash flow in the overall business:

They [private companies] want credit, to fund themselves with suppliers [...] and then they pay back little by little, causing lack of cash flow [Community administration]

The communities have a deep distrust regarding practices against which they had to fight from the concessionaires in the past (Zabin 1992). After the historical process to regain control over their forest, CFEs prefer a diverse portfolio of customers, beyond the most profitable option of long term relationships with few buyers, causing an increase in administrative costs. On a larger scale, the trust factor has limited trade and creates a lack of security along the entire processing and supply chain of forest products.

Often, the practice of *cargo system* held by CFEs to its administrative operation is not easily understood by people in the industry, which prioritizes efficiency in seeking customer satisfaction. In fact, a form of trust building within the community supporting the social enterprise is the practice of three year rotate managers in *cargo* service across the community division's enterprises (including the CFEs units' business management). To perform in different stages of the community 'corporation' creates social pride as well as other responsibilities towards the community.

Again, the gap between those levels of values have been filled by a group of brokers that in a practical way, have found a niche where they satisfy the demands of the market. They offer an interface between CFEs and the manufacturers.

My business happens precisely because of the lack of responsibility of the national sawmills regarding delivering and quality [...]. I preview the risks of the manufacturer. I work with 15 [CFEs] sawmills and when it is hard to find the wood, I know how to organize each order [...] all those problems with sawmills they [manufacturers] used to have are the ones we [brokers] face. Few sawmills are trustworthy [Sawnwood broker].

Even in a highly fragmented market, the opportunity for CFEs to take advantage of their social capital and find their market niche represents a collaborative effort rarely seen in the context of CFEs.

### Social Capital Networks as Opportunities for Mutual Benefit and Collaboration

During the development of this research, ICOFOSA social networks and norms of reciprocity facilitated cooperation for mutual benefits. This was shown by the response after the Mancomunados fire incident on December 13th, 2009 where the furniture factory (and other assets) of Pueblos Mancomunados was destroyed by fire. The immediate response by ICOFOSA's members was to agree to utilize Ixtlán's spare manufacturing capacity to enable the community of Mancomunado to continue manufacturing. This swift act of mutual assistance is the clearest indication of the value of the "Integradora" model. In itself, mutual assistance among economically fragile communities may be reason enough to selectively adopt such a model, even when the commercial benefits of integration are unlikely to be realized.

We can be selling charcoal now, but we are going to rise up [Pueblos Mancomunados operations manager, personal communication].

The manufacturing time of Mancomunados products in Ixtlán factory was an opportunity to exchange skills and both a learning experience for Mancomunados after the fire and for Ixtlán by learning in situ new ways to increase productivity on their machinery. In other words, Mancomunados paid back the favor by sharing experience with Ixtlán for 6 months through their workers and operation manager, on daily basis, their expertise on furniture manufacture. This exchange was also for Ixtlán most valuable that any operational consultancy ever given to the communities before, and its value was that Mancomunados was in a peer-position towards similar goals with less investment and more efficiency than Ixtlán factory. Two days after the incident, ICOFOSA had managed to advocate with the local government the construction of a new industrial bay for Mancomunados factory. A year later, the social capital bonding created within ICOFOSA after the incident, was gaining distribution channels by opening their third retailer of TIP Muebles in Mexico City and 18 months later is opening their fourth retailer in Puebla.

Moreover, the ICOFOSA venture has the political significance to allow rural people to build political alliances that bypass industrial forestry institutions and find sympathetic urban audiences and environmental allies, undermining extrinsic forces over their resources. To maintain the integration of ICOFOSA despite its challenges seems to be a tradition of communitarian organization and accountable

representation present as a result of their communitarian permanent strive, resilience and Zapoteco identity.

### Workers and Owners: Shades of Human Capital

As explained earlier, the *cargo system* based on position rotation also creates representative turnover in the Board of Directors of ICOFOSA, thus on the decision-making process. This is a frequent pattern in communities where the management is still traditional as compared to those with a clear boundary between the political realm and economic areas of the business management. Particularly for Textitlán, where the factories are still operating under *cargo system*, which implies a high level of influence from the community, their industry manager rotates every 3 years. This practice has created problems such as a high turnover rate causing a loss of their investment in specialized training. An important contention of the *cargo system* (service) is the one affecting the ownership of the production process. A common trait of the three communities that form ICOFOSA, and potentially the majority of CFEs, is that the organizational behavior performs as a result of property relations. CFE workers are typically owners, although this pattern can change by attracting an outside labor force.

In the case of Textitlán, some workers coming from the community are at the same time owners. They are in charge of the operation and logistics. They are also responsible for on-time deliveries to the retailers. However, far from the idea of being more engaged on the process given their ownership, from a marketing point of view, the traditional organizational model of Textitlán causes more complaints among TIP Muebles than any other ICOFOSA community.

Nobody wants to work, everyone wants to be a boss, and they do not cooperate [Local imports wholesaler].

Similar to the rotation of managers every 3 years, Textitlán factory workers also experience high personnel turnover, losing time and investment in core production steps such as wood drying and furniture finishing.

CFEs are criticized by policymakers and private business owners for being inefficient and lacking management and business sense. Often, they are supposed to offer social capital among the community but their financial instability puts their ultimate goal at risk. This provokes high turnover and great losses of human capital investment for the CFEs. The relatively low wages and the few incentives to retain workers are the main reasons why workers may choose to leave (Ixtlán worker, personal communication). The strategy of maintaining low salaries instead of training and retaining their labor force has been prevalent.

ICOFOSA's recent technology adquisition and inefficient administration, is putting pressure on finances of the three CFEs. High technology is not always required, especially when the company satisfies a local market, the spare parts cannot be supplied locally, and specially, when personal who were trained for operating imported machinery have already left the organization. A local manufacturer mentioned that with the same machinery, private firms could have been producing three times what the ICOFOSA factories are producing.

## TIP Muebles' Social Capital Adaptation to the Market

The clarity of an organizational goal determines the degree of its workers' engagement and its ultimate accomplishment. TIP Muebles as a retail strategy is in the process of developing a clear vision about distribution goals and the desired business culture in order to create their own distributing power.

When *strategic marketing* is developed over a long period, it forms a spirit or atmosphere. That spirit is the internal goal of marketing, to create a state of mind coming from inside the company (Hansen and Juslin 2011). In that sense, ICOFOSA represents a laboratory and a place for learning for the three companies. A close look at the common-pool decisions made in ICOFOSA can illustrate this organizational model.

The expectations that higher awareness in consumption could lead to open the market for FSC certified wood (Macqueen 2008) has faced the reality of the developing world: lack of consumer education and illegal logging competition, as pointed by a leading wholesaler in the Mexican furniture industry:

I do not expect FSC to be marketable in Mexico for the following 10 years (Muebles Placencia CEO, personal communication 2009).

Certification is almost an unknown topic for the bulk of Mexican consumers, as stated by a Forest Agency employee:

The furniture buyers know nothing about certification. There is no monitoring regarding the certification-sales training [...] people do not know what certified means, they think is about being legal [...] Certified for good management? They say: Yeah... it has been well handled, without any problem [Forest Agency employee].

Moreover, some people in the industry have wrong references about FSC thinking that it refers to wood quality and source of origin. Currently buyers, national retailers, and consumers of timber and furniture tend not to demand products with social and environmental credentials. The market is ruled roughly by species, price and timber quality (Macqueen 2008).

It seems that only when communities perceive a premium value for being certified they might be looking for this mechanism. On the first phase of FSC implementation, the communities were seeing certification as a way to improve their value. Now, the question is that if the costs of FSC procedures allow the maintenance of the certification itself.

Adding to the researcher's observations of current Rainforest Alliance efforts to maintain the certification, it is suggested that unless economic benefits are found, it is highly possible that this mechanism will be rejected in the communities due to the high cost of Certification maintenance. However, the Civil Mexican Council for the Sustainable Silviculture (CCMSS) took advantage of the place to discuss with producers about a premium-price strategy to propel to the national industry [Forestry Agency employee].

Conversely to income generation in the Mexican furniture market, where the FSC is not positioned, the FSC certification has been useful to compete for governmental purchases and recognition, several interviewees agree on this sense:

We are getting to a point where if the government wants to change the furnishing, they have to do it by introducing certified furniture on their national acquisitions [Forest Agency employee].

Only few CFES have seen externalities from the certification:

The indirect benefits of the certification are: (a) being prior candidates to the federal government and NGO funds. (b) Guarantee benefits to the credit access. The governmental purchases have to pull the demand for certified furniture, and afterwards the market comes, otherwise this is not going to work. CFES are emergent enterprises, in Oaxaca its startpoint has been related to the IEEPO contract [International NGO representative].

### *Governance Structure Adaptation*

The community structure (agrarian, municipal and religious) has been adapted as a result of extrinsic and intrinsic changes. In some communities, the General Assembly has lost decision power and has given it to key service people. The nature of decision making of CFES causes the corporate spirit to diffuse along the multiple steps to be done before any decision. In terms of the adequacy in which agreements are taken, there is a young generation of managers perceiving the lack of organizational orientation. However, ICOFOSA has relatively fast-track decision-making process compared to most CFES.

In some communities, the decision-making process is more traditional and is slower and more detailed. Even when the power is transferred to a manager the process is still slow. In the most developed CFES, decisions have to go from the Council analysis to the Assembly. I would say this model is shared by Mancomunados, then by San Juan, then Ixtlán, then Textitlán, then El Balcón and then Milpillás. Ixtlán has an Advisor Body, Mancomunados has delegates, the difference is that in Mancomunados are eight communities giving the power to the manager who takes the decisions. In Ixtlán, decisions are taken by the managers and the Advisor Body, a group of *comuneros*. In Textitlán, their Advisor Commission makes decisions slower, depending on the urgency of the issue [...] depending on the importance of the affair. While in Mancomunados the manager takes decisions regarding money, in other communities investments are decided between managers and the council [International NGO representative, engaged on the integration since it started].

In other communities, even though managers might have strong governance skills, they are seldom professionally trained in industrial manufacturing or business, and often have difficulty communicating effectively along the value chain.

In the broader Forest policy, the governance structure of the decentralization policy has received important critics:



The current strategy of going out with the larger ones [CFEs], of taking care only of the best 5, for la crème de la crème and neglect the bulk of the CFEs that are in lower levels of the PROCYMAF categorization. Of course, in terms of covering the raw material supply for the industry, makes sense ... instead of losing time skimping here and there ... but in terms of Forestry Development of “developing the productive potential of the countries’ forests in a sustainable way” [As stated in the Forestry Law] is not the best strategy. The key is to spread out the resources by allocating monies to the small ones [Forestry NGO advocate].

The current forest policy for CFEs is allocating resources to the larger ones, within a rationality that by supporting the most developed, the rest will follow in a multiplicative effect. This strategy may fall in the trap of believing that industrialization in high scale is the only solution for satisfying national demand:

It has been an error to stereotype. Always the same examples: Novec in Quintana Roo, Ixtlán, San Pedro el Alto in Oaxaca, el Balcón in Guerrero and San Juan Nuevo in Michoacán. The critics will say: yes they are five, and where are the rest of them? Seems like there is not more ... of course there are! there is a bunch of them ... here is the problem, that they tend to stereotype, to reduce it ... “everyone has to be like Ixtlán, or San Juan Nuevo”, and then they all want to make their resin factory and ... not all of them are in the same condition as Ixtlan is. The high government employee’s talk about cloning the experience ... what for? to spoil the multiple realities of a diverse sector [Forestry NGO advocate].

There is a reduced number of those frequently used as examples to demonstrate the competitiveness in the industry:

There are only two communities in level 5 (PROCYMAF II classification) San Juan Nuevo and Ixtlan ... and ICOFOSA. Then, in the 4th level, are the 5% of all the communities along the country. The problem is that most of them are in the level 1, the one of those communities that cannot afford to exploit their own forest, they are renters or in other cases they sell their forest, they are not generating scale economies [ICOFOSA ex-representative and current manager].

The majority of CFEs exist in subsistence economies. As an example, there is a grassroots case of a decentralized community that is satisfying the local demand out of an industrialization strategy by creating a well defined regional carpenters cluster:

In Trinidad, the money is better distributed. There are 27 carpenter workshops. They produce good furniture, using the mechanic-man, the blacksmith. Is a Little town with well distributed money? For me, Trinidad is a true example of what the communal enterprises should be ... in 3 years, Trinidad will be a model that gets ahead [Local imports wholesaler]

As an effort to gradually professionalize the diversity of CFEs, the current PROCYMAF shares the vision of social capital enhancement:

Some of the roadblocks resulting from the small budget seem to be lack of further monitoring of the PROCYMAF program:

In multiple times, the community enhancement fails because of lack of following through [PROCYMAF business consultant].

An overall balance of the regulatory framework suggests that it has not been able to increase the industry productivity, satisfy the national demand or improve equity and justice for local people. Experiences like TIP Muebles are more the result of a strong internal structure of governance, autonomy and networking capabilities.

### *Dilemma: Tradition Versus Efficiency*

An everyday challenge for ICOFOSA representatives is to make decisions adapting the business environment to the politics involved within the community. The bottom-line of their risk management relies on efficiency versus community support; here is the dilemma of tradition versus efficiency. The nature of a social business relies on the challenge to integrate two mentalities that seem to be exclusive: the business management philosophy and the communal governance system. Differences among ICOFOSA's three members make commercial integration a complex decision-making process.

This dilemma (tradition vs. efficiency) is faced equally by managers of the three factories as well as the representatives in ICOFOSA, on a daily basis. Managers try to politically satisfy the community expectations by looking at similar cyclic patterns or traditions that allowed them to be successful, resilient and maintain their culture in the past while trying to satisfy the day-to-day efficiency requirements (Jack Corbett, personal communication).

For CFEs, the communitarian goal is often stated as employment generation. However, the driving market pushes CFE managers to adapt decisions of incremental loss, forest mismanagement, and risk of bankruptcy. The adaptation path deals from the manager's adaptation to the requirements of the industry and those of the community, to a slower and more significant factor of community governance structure. The characterization of this adaptation shows that it is emerging from a complex dilemma between the traditional culture and the new business mentality required to stay in the industry. The core of the CFE challenge lies in this duality of being stewards of society and having few capabilities to efficiently manage their business. On the one hand an ICOFOSA managers' function is to balance the risks among financial assets of the factories by taking cost-oriented decisions, on the other, he has to gain trust and support from the community towards its main objective, their welfare.

### *Innovative Strategies Favoring Social Capital Integration Within the Community*

A rarely discussed, but existing, bonding social capital pattern in community governance is the legacy of *comunero* (commons) power. There are privileges reserved to male inheritors of *comuneros*. Some of those privileges are the right to

qualify for positions along the *cargo system*. Critics point out that current positions depend more on the comunero legacy than on skills and capabilities.

Especially in communities, more than in *ejidos*, this practice is directly affecting the decision-making process of CFEs. Some communities like Ixtlán are conscious about this pattern and have taken steps to adapt to the changing environment. Since 2004 the General Manager does not need to be “*comunero* son of a *comunero*”, however, the legacy practice continues.

Within the community, the idea to involve outsiders is not always well received. Values and mentality might differ or even threaten the existing ones. Outsiders are perceived to not fully engage while people from the community are supposed to give more than what is requested.

The General Assembly, in most cases, is traditionally dominated by the most senior members. In Ixtlán this structure has been adapted and young people are incorporated to give them voice in the CFEs administration both as a regenerating practice and as an option to retain younger generations that may potentially migrate elsewhere. Another innovation in their traditional structure has been the Advice Council, which as a technical assistance group is able to evaluate the CFE manager’s decisions before being presented to the General Assembly.

## Future Challenges for CFEs in the Marketplace

In this study the potential for CFEs in the marketplace is explained by the internal decision making systems of CFEs. While CFEs struggle with their responsibility to optimize their availability of natural resources and human capital to sustain its participation in the market; there are extrinsic factors limiting their participation. Some of them are the current trade liberalization policy and resulting low cost imports. The Mexican tax reduction in wood extraction policy, encourages CFEs to see forest harvesting as a more profitable business than manufacturing.

In Mexico, the forest fiscal policy does not distinguish between a private and a CFE (Forster & Argüelles 2004). As in the past, the profit margins are still higher in the extraction process (Zabin 1992) than in the manufacturing operations:

Taxes are higher for transformation than for extraction, in Mexico round wood extraction is 0% taxed if the company only is focusing in primary activities [Alberto Belmonte, personal communication].

The following stage of the value chain, transformation, is higher taxed and regulated. The industry policy for forest products is designed to promote extraction over transformation. The system supports the trend to transform the communities into raw material suppliers and the forest abandonment (Forster & Argüelles 2004).

The fiscal policy has to keep in mind that forestry is of public interest... instead of paying taxes the communities should be forced to show investment in silviculture, industry and public infrastructure (Forster & Argüelles 2004).

The public forest policy bureaucracy to obtain permits and its lack of articulation with other institutions increases the response time of the industry and reduces its overall competitiveness. The possibility to transfer power to local institutions, to decentralize the future of their forest could work if the conditions of citizenship and responsibility associated with education were met. An overall mentality of distrust and even confrontation among CFEs and private companies reflects the degree of fragmentation in the industry.

Some of the limiting factors affecting the supply channel in the rural environment is that few suppliers are able to enter in the formal market and able to cooperate with manufacturers to provide material sources and fiscal obligations:

Then it is hard to deal with an ejido where they may not get invoices (Any proof of source of origin and control for taxations) [Furniture high-end manufacturer].

While illegal logging and land conflicts continue to deforest CFEs resources at a significant rate, varying from some communities doing better than others across the country, the alternative of forest certification has not been met due to a lack of consumer education and market awareness.

In response to this gap of information, in June 2010, 10 ejidos and comunidades in Mexico integrated an initiative called Alianza EcoForce de México (Alianza de las Comunidades y Ejidos Forestales certificados A.C.) to act as a *push* driving force in the certified forest products market. *The Alianza EcoForce de México* aims to be a collaborative strategy among government, society and the private sector. They are pushing public purchases such as the agreement from the federal government to buy 80% of its office furniture from community industries as stated in the current Purchases and Acquisitions Law [*Researcher in international public policy issues*].

There is a need to propel synergies [...] the certification is not going to work until we have a production and marketing strategy [Forest NGO representative and environmental advocate].

The Forest Policy of Mexico since the creation of CONAFOR, 10 years ago reflects the importance of enterprises such as ICOFOSA, which have demonstrated forest stewardship while creating social impacts. As a result of organizational processes, participation in exchange, networking and alliances, the Oaxacan Forest budget has increased 16 times in 10 years, according to official sources, (NSS Noticias 2011) Thus, the support to CFEs from the PRODEFOR Forestry Development Program and PROCYMAF Conservation Program, plays a significant role in the success of CFEs such as ICOFOSA. The ProÁrbol Program is now investing in technology. However, attention to the human factor of the Forest Sector in Mexico is still a minor focus. Specialized training in different business areas to consolidate and expand is now required in the three major operational challenges to TIP Muebles: product quality, time-delivery, and capacity to maintain the required volumes. Nonetheless, technical assistance should continue to be decentralized by giving CFEs the responsibility to guarantee the sustainability of their forests. TIP Muebles is one case of several (including Finland, Germany and France) (García 2008) that are proving that with focus on the people rather than on the trees, CFEs

have the potential to stimulate the economy of forested regions and more effectively achieve the goals of conservation, and build solidarity against the international illegal wood market.

## Discussion

ICOFOSA is demonstrating that the Forest Policy in Mexico could achieve better results if the owners of the forest could take charge of their resources. Beyond the trees production nurseries propelled by ProÁrbol Program, the strengthening local capacity building, planning skills, and training on technical forest management skills and finances of rural organizations, comunidades and ejidos could offer real stewardship to their own forest and for families.

A Forest Policy able to give more emphasis to the people instead of to the trees, could affect in a more sustainable way the conservation goals, reduce deforestation, forest fires and the market for illegal logging.

The engagement and de degree of the resources appropriation of the communities are based first on the land ownership and the decision making process and second, on their opportunities to experience the forest management and learn from their mistakes.

According to the objectives of this research, the results section have explore on the nature of what takes to CFEs such as ICOFOSA to integrate in cost-efficient forest operations. The first and most important are the inter-communitarian strategies of marketing through a remarkable degree of inter-community trust. This level of trust and reciprocity has directly evolved in the integration and horizontal collaboration of TIP Muebles. A deep political consciousness developed on their identity as social organizations, and beyond, as citizen's trough the intangible value of cargo system within the community provides them with the "business toolkit" to create a bonding social capital pattern in community governance. Their success could propel by including the woman factor on their already existing governance structure.

Since 2005 those communities are collaborating and continuously participating on their marketing strategy to align their local reality to the forest policy and to create market access.

In the same order, ICOFOSA has been able to develop a fair level of trust along the forest-products value chain in Mexican governmental supplies with the Alianza EcoForce de México. ICOFOSA also has been able to manage TIP Muebles branding trough networking, production and organizations aligned to their common goals, such as the local Government with scholar contracts, Rainforest Alliance, CONAFOR, G-Bosques, WWF, Trust Funds for Agricultural Financing FIRA (Fideicomisos Instituidos en Relación a la Agricultura) and most recently with the visibility strategy trough Iniciativa Mexico.

In fact, a high degree of common-pool subsidization among those institutions has allowed TIP Muebles to afford the costs of the learning curve required to perform into a technology intensive industry.

Many CFEs face common inefficiency patterns such as moderate marketing and design capabilities, high production costs due to lack of training in the operation, high turnover based on traditional governance structures, and lack of management competencies. However, they also offer opportunities for local development such as the generation of economies of scale with multiplication effects within the communities, retention of younger generations from migration patterns, and generation of leadership in the community to negotiate, organize and participate in decisions regarding the use of their natural resources.

The adaptation and innovative strategies of decision-making processes is allowing communities in ICOFOSA to maintain resiliency and, in few exceptional cases, to go beyond the profitability threshold.

There is no such model to solve the tradition versus efficiency dilemma that does not takes prior the community agreement on their destiny. The perception of tradition and efficiency in the market is transforming the numerous ways in which traditional communities compete in the forest products industry. Every CFE case has its own dynamic and its own social rationality, TIP Muebles could offer a guide to learn from their experience only for CFEs in the fourth group of PROCYMAF classification, who have already decided a traditional model of Development based on technological-management modernization. In order for those CFEs to differentiate in the market, find their niche, and have access to markets, the composition through levels of planning, organization, bargaining capacity, product quality and distribution of power, TIP Muebles could be used as a reference point. However, communities in the four group of PROCYMAF classification, which could be seen as the elite of CFEs, are often used as a stereotype to create vertical strategies that ignore the bulk of CFEs not-so-well developed (*rentistas*<sup>1</sup> and roundwood sellers) who are also able to offer alternative forms of forest management and development in a small-scale yet widespread basis. To precipitate those dynamics in order to accomplish institutional goals could involve risks and damage the relationships with the players within the communities and to lead distrust of the business environment surrounding CFEs.

Some highly industrialized CFEs in Mexico show that their forests are currently subsidizing their technological machinery to an unsustainable degree. In other words, the intensive cost of high tech machinery could have the risk of being paid on roundwood basis instead of profits margins. Human capital creation, focusing on training, could give the community the tools to professionalize the production process to a safe and continuous output. There must be a “reengineering” of the processes of production, investment, and distribution of profits (Bray et al. 2005).

Also, to break down the current “vertical nature” of the regulatory framework into a more democratic decentralization, there is a call for action in capacity building, planning and transversal collaboration among different actors of the state, municipalities, private firms, and communities.

A Forest Policy that supports the integration of the private sector with CFE producers in a trustworthy relationship is urgently needed if the national forest

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<sup>1</sup> The *rentista* is referred to those communities that sell the timber on the stump, the term is normally used in a derogatory sense in Mexico for communities that contract out most of the logging, when that may be the economically optimal decision for them (Bray and Merino-Pérez 2005).

industry is to gain productivity and market access for environmental and sustainable niches. The communities should continue assessing both the forest sustainability and the social satisfaction within the communities to plan their expansion goals according to it. Both, the CFE sector and the private industry are looking for cost-reduction opportunities to increase productivity and, should take the responsibility to establish more direct relationships, and organize a trade initiative on the conditions of trade or terms of trade. Otherwise, the outcome may be a gradual shrinkage of the sector and an increase of illegal extraction.

Even tough the broader challenges of young migration generations, high levels of illiteracy, internal conflicts, and illegal deforestation that directly threatened the forest sustainability, TIP Muebles has an experience to be considered by countries who are beginning to devolve their forest to local communities.

Although, forest management by communities has happen along with the humankind history, its promotion by development agencies in developing countries is relatively recent and faces some resistance to the idea of surrounding control of such valuable resource. Recently, the idea to decentralize much of the tropical forest has faced some pressure coming from the international conservation NGOs to conceptualize, in some cases, humans as a driver to degradation. The timber industry claims that their economies of scale are much more suitable to manage forest sustainable (Karsenty et al. 2008) and carbon financing mechanisms strive on the suitable land tenure to attract private investment. All this factors can be managed by CFEs as the case of TIP Muebles proves (Villavicencio 2009), but these exceptional practices of CFEs are not widespread and a lot still to be systematized about their collective action, environmental and social success.

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## References

- Anta FS (2004) Forest certification in Mexico. Consejo Civil Mexicano para la Silvicultura Sostenible
- Antinori C, Bray D (2005) Community forest enterprises as entrepreneurial firms: economic and institutional perspectives from Mexico. *World Dev* 33(9):1529–1543
- ASETECO (2002) Una caminata de veinte años por los bosques comunales de Oaxaca. Historia del acompañamiento de una asociación civil (ASETECO) a las comunidades indígenas con recursos forestales del estado de Oaxaca, México, p 322
- Bray D (2010) The community as entrepreneurial firm: common property capitalism in Mexican forest communities creates jobs, competes in global markets, and conserves biodiversity. *Am Quart* 21(4):333–346
- Bray D, Merino-Pérez (2002) The rise of community forestry in Mexico: history, concepts, and lessons learned from 25 years of community timber production. Unpublished draft summated to The Ford Foundation

- Bray D, Merino-Pérez L, Barry D (2005) The community forests of Mexico: managing for sustainable landscapes. University of Texas Press, Austin, p 372
- Bray D, Antinori C, Torres-Rojo J (2006) The Mexican model of community forest management: the role of agrarian policy, forest policy and entrepreneurial organization. *For Policy Econ* 8:470–484
- Cassell C, Symon G (2004) Essential guide to qualitative methods in organizational research. Sage, London
- Chad P (1998) Processes of a case study methodology for postgraduate research in marketing. *Eur J Mark* 32(9/10):785–802
- CIFOR (2010) Towards post REDD landscapes: Mexico's community forest enterprises provide a proven pathway to reduce emissions from deforestation and forest degradation. In forest carbon portal, tracking terrestrial carbon. Consulted on June 2011
- Ellis F (2000) The determinants of rural livelihood diversification in developing countries. *J Agric Econ* 51(2):289–302
- Forster R, Argüelles A (2004) Opciones y barreras de mercado para madera aserrada de Michoacán, Oaxaca, Guerrero, Campeche and Quintana Roo, México. *Tropical rural Latinoamericana TRL*, pp 1–80
- García P (2008) Una de cal. TIP Muebles, un modelo de integración comunal, industrial y comercial. La Jornada del Campo. Director: Carmen Lira Saade, Suplement founder: Carlos Payan Vélver
- Hansen E, Juslin H (2011) Strategic marketing in the global forest industries, 2nd edn. Corvallis, Oregon, p 327
- Hardin G (1968) The tragedy of the commons. *Science* 162:1243–1248
- IFFA (2009) Family and community forests: a global partnership for sustainable development and a healthy climate. International Family Forestry Alliance and the Global Alliance for Community Forests, Canada
- ITTO (2006) Annual review and assessment of the world timber situation 2005. ITTO, Yokohama, Japan
- IUFRO World Series (2005) La Contribución del Derecho Forestal-Ambiental al Desarrollo Sustentable en América Latina, vol 16, p 381. Gallardo Gallardo E, Schmithüsen F. ISBN: 3-901347-53-4, Vienna
- Karsenty S, Drigo I, Pikkety M, Singer B (2008) Regulating industrial forest concessions in central Africa and South America. *For Ecol Manag* 256(7):1498–1508
- Klooster D (2000) Institutional choice, community, and struggle: a case study of forest co-managed in Mexico. *World Dev* 28(1):1–20
- Klooster D (2006) Environmental certification of forests in Mexico: the political ecology of a nongovernmental market intervention. *Ann Assoc Am Geogr* 96(3):541–565. doi:[10.1111/j.1467-8306.2006.00705.x](https://doi.org/10.1111/j.1467-8306.2006.00705.x)
- Macqueen D (2006a) Exploring fair trade timber, a review of issues in current practice, institutional structures and ways forward. International Institute for Environment and Development (IIED), London
- Macqueen D (2006b) Governance towards responsible forest business: guidance on different types of forest business and the ethics to which they gravitate. International Institute for Environment and Development (IIED), London
- Macqueen D (2008) Distinguishing community forest products in the market. Industrial demand for a mechanism that brings together forest certification and fair trade. IIED small and medium forestry enterprise, series no 22. IIED, Edinburgh
- Merino L (1997) Revaloración de la selva y manejo forestal sustentable: la experiencia de la Organización de Ejidos Forestales de la Zona Maya de Quintana Roo. Universidad Nacional Autónoma de México, México City (Unpublished Ph.D. thesis)
- Molnar A et al. (2007) Community-based forest enterprises. Their status and potential in tropical countries. ITTO technical series #28. RRI and forest trends
- Muñoz-Piña C, Fernandez E, Sadoulet E (2003) Recrafting rights over common property resources in Mexico. *Econ Dev Cult Chang* 52(1):129–158
- NSS Noticias (2011) Comunicado. Anuncia director de CONAFOR inversión de 183 mdp para Oaxaca
- Nygren A (2005) Community-based forest management within the context of institutional decentralization in Honduras. *World Dev* 33(4):639–655
- O'Leary Z (2005) Researching real-world problems: a guide to methods of inquiry. Sage, London
- Pérez N (2007) Operative plan of TIP furniture factory. Rainforest Alliance, TREES Program, Oaxaca, México



- Ribot JC (2003) Democratic decentralization of natural resources. Institutional choice and discretionary power transfers in sub-Saharan Africa. *Public Adm Dev* 23(1):53–65
- Ross M (2005) Democracy in the commons: new hope for community forestry in Mexico in ecological democracy and forest-dependent communities in Oaxaca, México. PhD dissertation, Alberta, Canada
- Stiglitz J (2002) *Globalization and its discontents*. W.W. Norton & Company
- Strauss AL (1987) *Qualitative analysis for social scientists*. Cambridge University Press, Cambridge, p 336
- Strauss A, Corbin J (1990) *Basic of qualitative research: grounded theory procedures and techniques*. Sage, Newbury Park
- Sunderlin W, Angelsen A, Belcher B, Burgers P, Nasi R, Santoso L, Wunder S (2005) Livelihoods, forests, and conservation in developing countries: an overview. *World Dev* 33(9):1383–1402
- Villavicencio (2009) Opportunities and limitations of community forest enterprises. MS thesis
- White A, Martin A (2002) Who owns the world's forests? Forest tenure and public forests in transition. *Forest Trends and Center for International Environmental Law*, Washington, DC
- Yin R (2009) Case study research. Design and methods. *Applied social research methods*, vol 4. Sage, p 217
- Zabin C (1992) El mercado de la madera en Oaxaca. Cuadernos de trabajo, empresas y ecodesarrollo. Saldebas. Fundación Interamericana, p 61